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In the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of laminating a lithium or lithium alloy sheet into a thin film, said method comprising the steps of:

-passing said sheet of lithium or lithium alloy between the meeting surfaces of a pair of working rollers to reduce the thickness of said sheet of lithium or lithium alloy to form

a lithium or lithium alloy film of reduced thickness;

-measuring the evenness of the thickness of said lithium or lithium alloy film of

reduced thickness with an optical system;

-adjusting the profile defined by said meeting surfaces of said pair of working rollers in

response to measurements of the optical system to control the shape and profile of said

lithium or lithium alloy film of reduced thickness being laminated by applying forces

to the end portions of said working rollers such that each of said pair of working rollers

bends thereby modifying the profile defined by said meeting surfaces with a deviation

of 10 microns or less from a linear profile to produce a lithium or lithium alloy film of

near constant thickness throughout its length and width;

-removing said lithium or lithium alloy film of reduced thickness from between said

pair of working rollers by applying a controlled given tension to said lithium or lithium

alloy film.

2. (Cancelled)

3. (Currently Amended) A method as defined in claim 1 [[2]] wherein said working rollers

have a convex cylindrical shape adapted to facilitate the bending of said working

rollers.

4. (Currently Amended) A method as defined in claim $\underline{1}$ [[2]] wherein a pressure sufficient

to reduce the thickness of said lithium or lithium alloy sheet is evenly applied onto said

working rollers by at least one pair of back-up rollers.

5. (Original) A method as defined in claim 4 wherein pressure and forces are generated by

hydraulic piston-cylinders assemblies.

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6. (Original) A method as defined in claim 5 wherein adjustment of pressure and forces is

provided through hydraulic control valves adapted to regulate hydraulic fluid debit.

7. (Original) A method as defined in claim 4 wherein pressure and forces are generated by

electric actuators.

8. (Currently Amended) A method as defined in claim 1 wherein prior to the step of passing

said sheet of lithium or lithium alloy between said pair of working rollers, said lithium

sheet is rapidly winded wound through a series of tightly packed upper rollers and

lower rollers to eliminate any lateral displacement of said lithium sheet thereby

ensuring said lithium sheet is fed straight into a central portion of said working rollers

without any lateral weaving motion.

9. (Original) A method as defined in claim 1 wherein said working rollers are made of

stainless steel.

10. (Original) A method as defined in claim 9 wherein said working rollers are coated with

chrome.

11. (Currently Amended) A method as defined in claim 1 wherein said working rollers are

made of <u>at least one of plastic[[,]]</u> and acetal or .RTM.Delrin.

12. (Original) A method as defined in claim 1 wherein a lamination lubricant is applied to

the sheet of lithium or lithium alloy.

13. (Currently Amended) An apparatus for laminating a lithium or lithium alloy sheet into a

thin film, said apparatus comprising: a lithium or lithium alloy sheet feed roller; a

lamination lubricant dispensing unit; a pair of working rollers defining a lamination

surface adapted to reduce the thickness of said sheet of lithium or lithium alloy to form

a lithium or lithium alloy film of reduced thickness; an optical measurement system for

measuring the evenness of the thickness of said lithium or lithium alloy film of reduced

thickness; adjustment means linked to the optical measurement system for adjusting the

profile of said lamination surface defined by said pair of working rollers in response to

measurement of the optical measurement system; and a winding roll for winding said

lithium or lithium alloy film of reduced thickness, said winding roll connected to a

driving means for winding said film under a pre-determined controlled tension.

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14. (Original) An apparatus as defined in claim 13 wherein said working rollers are mounted

onto supporting members, said supporting members adapted to apply forces to said

working rollers such that each of said working rollers bends thereby modifying the

profile of said lamination surface to control the shape and profile of said lithium or

lithium alloy film of reduced thickness being laminated.

15. (Original) An apparatus as defined in claim 14 further comprising at least one pair of

back-up rollers, each adjacent and in contact with one of said pair of working rollers

and adapted to apply pressure onto the adjacent working roller.

16. (Original) An apparatus as defined in claim 14 further comprising hydraulic piston-

cylinders to generate a necessary force to bend said working rollers.

17. (Original) An apparatus as defined in claim 14 wherein hydraulic piston-cylinders are

mounted onto support frames to which are mounted said back-up rollers.

18. (Original)An apparatus as defined in claim 14 wherein said working rollers have a

convex cylindrical shape adapted to facilitate the bending of said working rollers.

19. (Original) An apparatus as defined in claim 16 wherein adjustment of pressure and forces

is provided through hydraulic control valves adapted to regulate hydraulic fluid debit.

20. (Currently Amended) An apparatus as defined in claim 13 further comprising a

straightener having a series of tightly packed <u>upper rollers and lower</u> rollers adapted to

eliminate any lateral displacement of said lithium or lithium alloy sheet thereby

ensuring said lithium or lithium alloy sheet is fed straight into said lamination surface

without any lateral weaving motion.

21. (Original) An apparatus as defined in claim 13 further comprising a thin film of

insulating material which is winded around the winding roller to separate layers of

lithium or lithium alloy film such that they will not adhere to each other.